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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,900	05/19/2006	Zhao Yang	16CN-X0107	6921
7590 Patrick W Rasche Armstrong Teasdale Suite 2600 One Metropolitan Square St Louis, MO 63102			EXAMINER KIKNADZE, IRAKLI	
			ART UNIT 2882	PAPER NUMBER
			MAIL DATE 06/26/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/579,900	YANG ZHAO	
	Examiner	Art Unit	
	Irakli Kiknadze	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7 and 10 is/are rejected.
- 7) ☒ Claim(s) 4,8 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/19/2006</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2, 3 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claims 2 and 7, the phrase "can move" renders the claim indefinite because it is unclear whether the limitations following the phrase "can" are part of the claimed invention. Claim 3 is rejected by virtue of its dependence.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5-7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Cosman (US Patent 5,748,703).

With respect to claims 1-3, 5-7 and 10, Cosman teaches a collimator comprising:
 a pair of first plate members (601A and 601B) having a shielding property against an x-ray radiation and movable in a direction parallel to surfaces thereof, the pair of first plate members defining a radiation passing aperture by a spacing between respective opposed end faces;

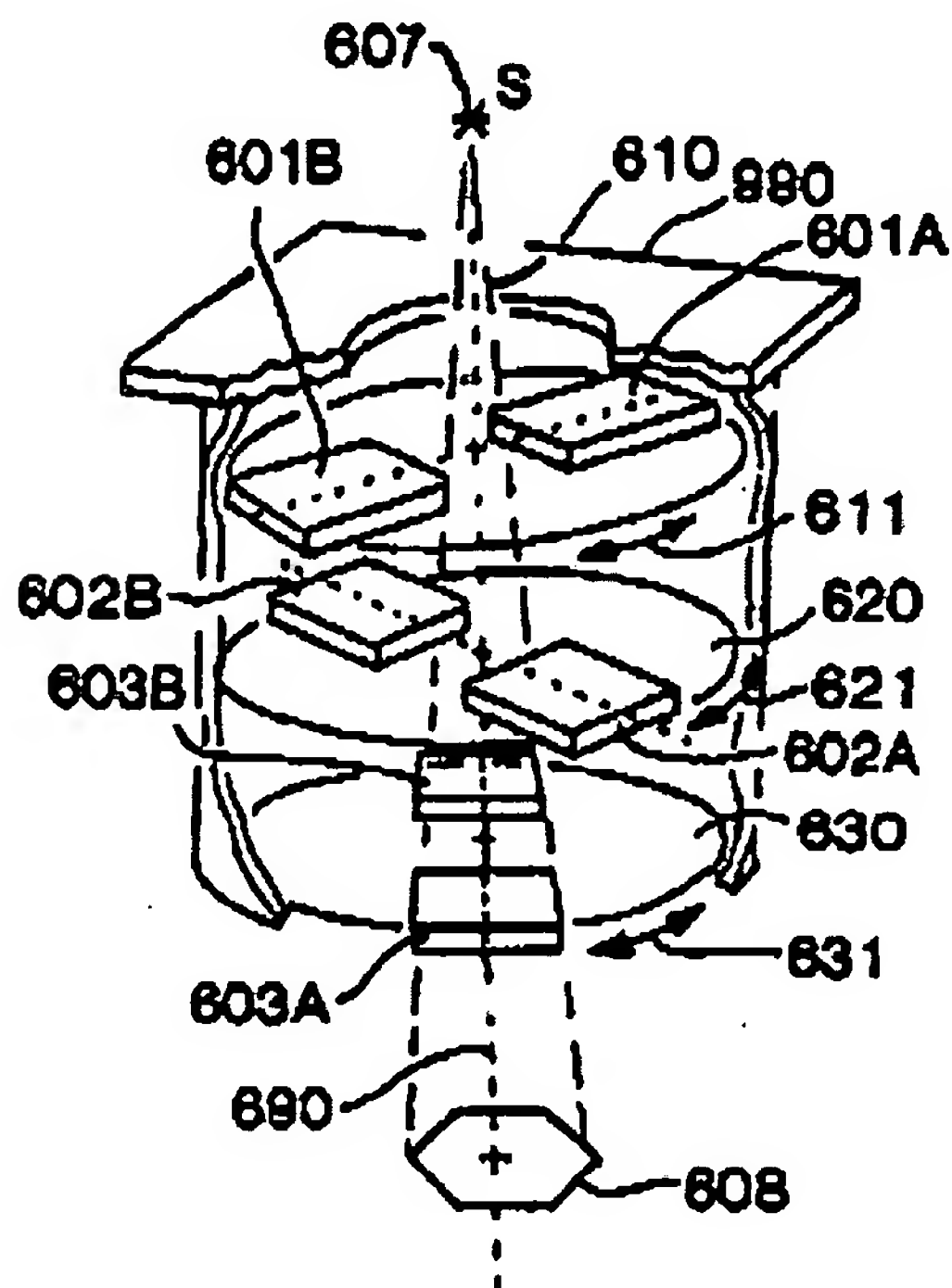


FIG. 6

a pair of second plate members (602A and 602B) having a shielding property against a radiation and parallel to the pair of first plate members and movable in a direction parallel to surfaces thereof, the pair of second plate members having end faces opposed to each other in the shielding property, the pair of second plate members overlapping the pair of first plate members at least partially so as to block any other radiation than the radiation passing through the

aperture;

a pair of third plate members (603A and 603B) having a shielding property against a radiation and parallel to the pair of second plate members, the pair of third plate members having respective end faces Opposed to each other with a predetermined spacing, the pair of third plate members overlapping the pair of second plate members at least partially so as to block any other radiation than the radiation passing through the aperture;

an adjusting mechanism which adjusts the aperture by moving the pair of first plate members; and

a follow-up mechanism which causes the pair of second plate members to move following the pair of first plate members with movement of the first plate members.

(column 5, line 29 and column 6, line 17).

Allowable Subject Matter

6. Claims 4, 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 4 and 9, prior art fails to teach or make obvious a collimator comprising a follow-up mechanism comprising: an arm member mounted at

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an intermediate portion thereof to the second plate member and rotatable about the mounting portion in a plane parallel to the plate surface; a groove formed in the first plate member and with which one end of the arm member is engaged, the groove permitting movement of the one end of the arm member in a direction perpendicular to the moving direction of the first plate member; and a groove formed in the third plate member and with which an opposite end of the arm member is engaged, the groove permitting movement of the opposite end of the arm member in a direction perpendicular to the moving direction of the second plate member as claimed including all of the limitations of the base claim and any intervening claims.

With respect to claim 8, prior art fails to teach or make obvious a collimator comprising a follow-up mechanism comprising: a rack provided in the first plate member a gear provided in the second plate member rotatably and engaging with the rack; and a fixed rack provided in the moving direction of the second plate member and engaging with the gear as claimed including all of the limitations of the base claim and any intervening claims.

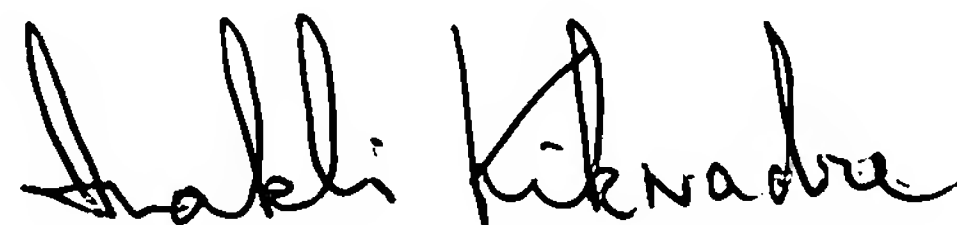
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ik/June 22, 2007

A handwritten signature in black ink, appearing to read 'Irakli Kiknadze', with a stylized, cursive script.

Irakli Kiknadze
Patent Examiner